



Timely Viticulture

- Dormant
- Pre-Bloom
- Bloom
- Post Bloom
- Mid Season
- Pre-Harvest
- Harvest
- Post Harvest
- Dormant

"Timely Vit" is designed to give those in the Maryland grape industry a timely reminder on procedures or topics they should be considering in the vineyard.

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Crop Development Sampling

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It is critical to properly monitor and assess fruit maturity characteristics to make the appropriate management, harvesting, and winemaking decisions to produce the best quality grapes and wine possible. The first step to assess ripeness and quality is to take a proper sample that best represents the actual ripeness stage of the cultivar in that block of the vineyard. The best way to achieve this is to collect a sample that is random, unbiased, and representative.

- Pointers to collect a good sample:
 - Sample for sugar in the cool morning, since sugar levels of grapes collected in the heat of the day will register artificially high.
 - Avoid sampling during rain, dense fog or dew, which can produce diluted values.
 - Avoid edge rows and first few vines in row.
 - Sample each cultivar separately.
 - Independently collect samples from any sub-blocks that will be harvested separately (logistics, clones, rootstocks, soil changes, etc.)
 - The maximum sample area should be < 2A.
 - The larger the area the larger the sample should be.
 - For each row, estimate the proportion of shaded vs. full sun clusters and sample accordingly.
 - Collect samples from both sides of vine.
 - Secondary clusters, diseased and sun burned fruit should be included in the sample (in the appropriate proportions) if they will be harvested and processed along with the rest of the crop.
 - Samples may consist of individual berries or whole clusters; either way careful attention must be given to obtain a truly representative sample.
 - If sampling berries, only one berry per vine should be sampled.
 - Collect berries from top, middle, bottom. and all sides of clusters.
 - The most consistent sampling is when the same person does the sampling each time.

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- **Remember, about 90% of the variation in berry sampling comes from variation *in the position of the cluster and degree of fruit exposure.***
- Sample size should be related to the size of the block and most importantly to the ***degree of variability within the block.***
 - Vineyards with a high degree of variability require sampling a larger percentage of the vines to obtain a representative sample.
- The greater the number of berries in the sample, the more representative the sample will be.
 - To be within +/- 1.0 °Brix, you need a sample of 200 berries.
 - To achieve +/- 0.5 °Brix, samples of 500 berries are required.
 - If you are cluster sampling, 10 clusters are needed to be with +/- 1.0 °Brix of actual.
 - Depending on stage of ripeness, blocks are sampled every second to third week and more intensively as harvest approaches.
 - pH, titratable acidity (TA), and Brix are the common “objective” measurements practiced.

For additional information on grape sampling and evaluation, please see the following [Timely Viticultures](#):

- **Evaluating Grape Samples for Ripeness**

https://extension.umd.edu/sites/extension.umd.edu/files/docs/articles/TV_EvaluatingGrapeSamplesForRipeness_0.pdf

- **Harvest Priorities**

https://extension.umd.edu/sites/extension.umd.edu/files/docs/programs/viticulture/TV_HarvestPriorities.pdf

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